CORRECCIÓN DEL TRABAJO

- FUNCIÓN DE PRODUCCIÓN

Mal.

$$\left.\begin{aligned} 153233'4 &= 17'32\,w + 2849'31\,i - c \\ 178195'62 &= 18'68\,w + 3239'81\,i - c \\ 111693'6 &= 3'34\,w + 1025'91\,i - c \end{aligned}\right\} \quad \begin{aligned} i &= 19'83 \\ w &= 13405 \\ c &= 135414'3 \end{aligned}$$

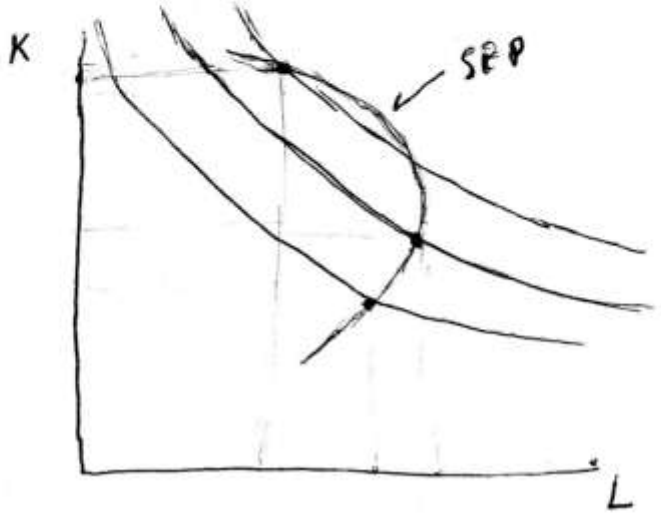
$$q = 13405\,L + 19'83\,K - 135414'3$$

- RECTA ISOCOSTE

$$\left.\begin{aligned} 24612'5'1 &= 17'32\,w + 2849\,i + c \\ 49315'4 &= 18'68\,w + 3239'81\,i + c \\ 51859'62 &= 3'34\,w + 1025'9 + c \end{aligned}\right\} \quad \begin{aligned} i &= 7'91 \\ w &= 72'5 \\ c &= 22331'4 \end{aligned}$$

$$C = 72'5\,L + 7'91\,K + 22331'4$$

- SENDA DE EXPANSIÓN DE LA PRODUCCIÓN



Luego la SEP es:

$$K = a + bL + cL^2$$

Calculo matemático de la SEP:

$$\left.\begin{array}{l} 2849{,}3 = a + 17{,}32b + 17{,}32^2c \\ 3239{,}8 = a + 18{,}68b + 18{,}68^2c \\ 10225{,}9 = a + 3{,}34b + 3{,}34^2c \end{array}\right\} \quad \begin{array}{l} b = 56{,}6 \\ a = 54{,}93 \\ c = 5{,}94 \end{array}$$

$$SEP \equiv K = 54{,}93 + 56{,}6L + 5{,}94L^2$$

FUNCION DE COSTE TOTAL

$$\left.\begin{array}{l} q = 13405L + 19{,}83K - 135414{,}3 \\ C = 725L + 7{,}91K + 22331{,}4 \\ K = 54{,}93 + 56{,}6L + 5{,}94L^2 \end{array}\right\} \Rightarrow$$

$$\left.\begin{array}{l} q = 14527{,}4L + 117{,}8L^2 - 134325 \\ C = 520{,}21L + 46{,}98L^2 - 22331{,}4 \end{array}\right\}$$

Despejamos L en la primera función:

$$L = \frac{-14527{,}4 \pm \sqrt{274339290{,}8 + 471{,}2q}}{235{,}6}$$

Lo sustituimos en la segunda ecuación y obt el coste total.

$$CT = 72'5\left[\frac{-145284 + \sqrt{2743392900'8 + 471'29}}{235'6}\right] + 7'91\left[\frac{-145284 + \sqrt{2743392900 + 471'29}}{235'6}\right]^2 + 22331'4$$

FUNCIÓN DE OFERTA:

$$Si \equiv P = CMa = 471'29 + 41150893'6$$

Demanda $q = -4443'827289\,p + 146158'8954$

Eq $\begin{cases} p = 471'29\,q + 41150893'6 \\ q = -4443'827289\,p + 146158'8954 \end{cases}$

$\begin{cases} q = -4443'827289\,(471'29 + 41150893'6) + 146158'8954 \\ q = -2329531'419q - 20344291070'0 + 146158'8954 \end{cases}$

$2329532'419q$